

BY
DRAFTSMAN

G. FIG.
CLASS SUBCLASS

Applicant: Holmes et al.
Serial No.: 09/742,545
Atty. Dkt. No.: 9D-HR-19396
Title: REFRIGERATOR - ELECTRONICS ARCHITECTURE
John S. Beulick; Armstrong Teasdale LLP, One Metropolitan Square,
St. Louis, MO 63102 (314) 621-5070

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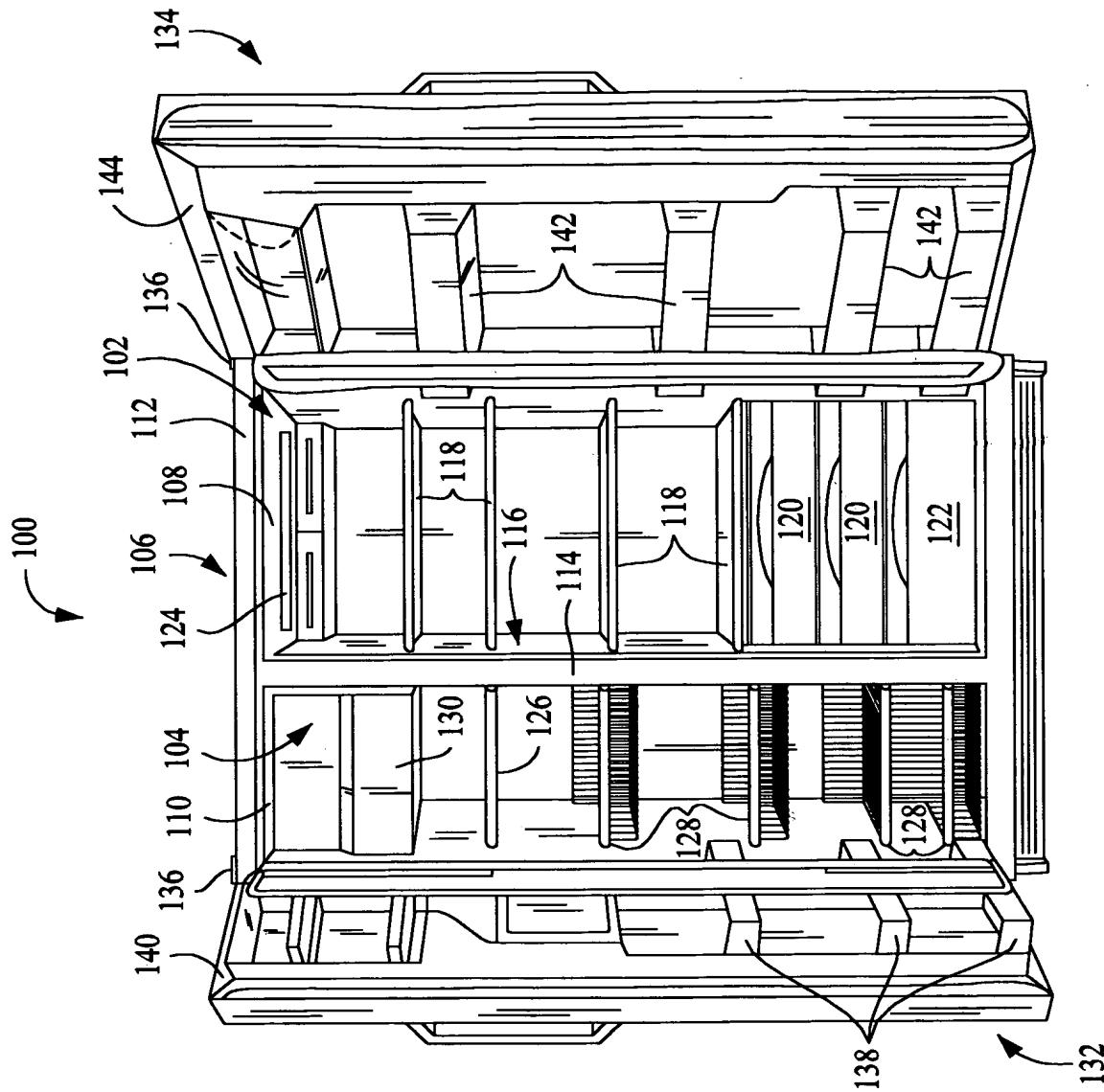


FIG. 1

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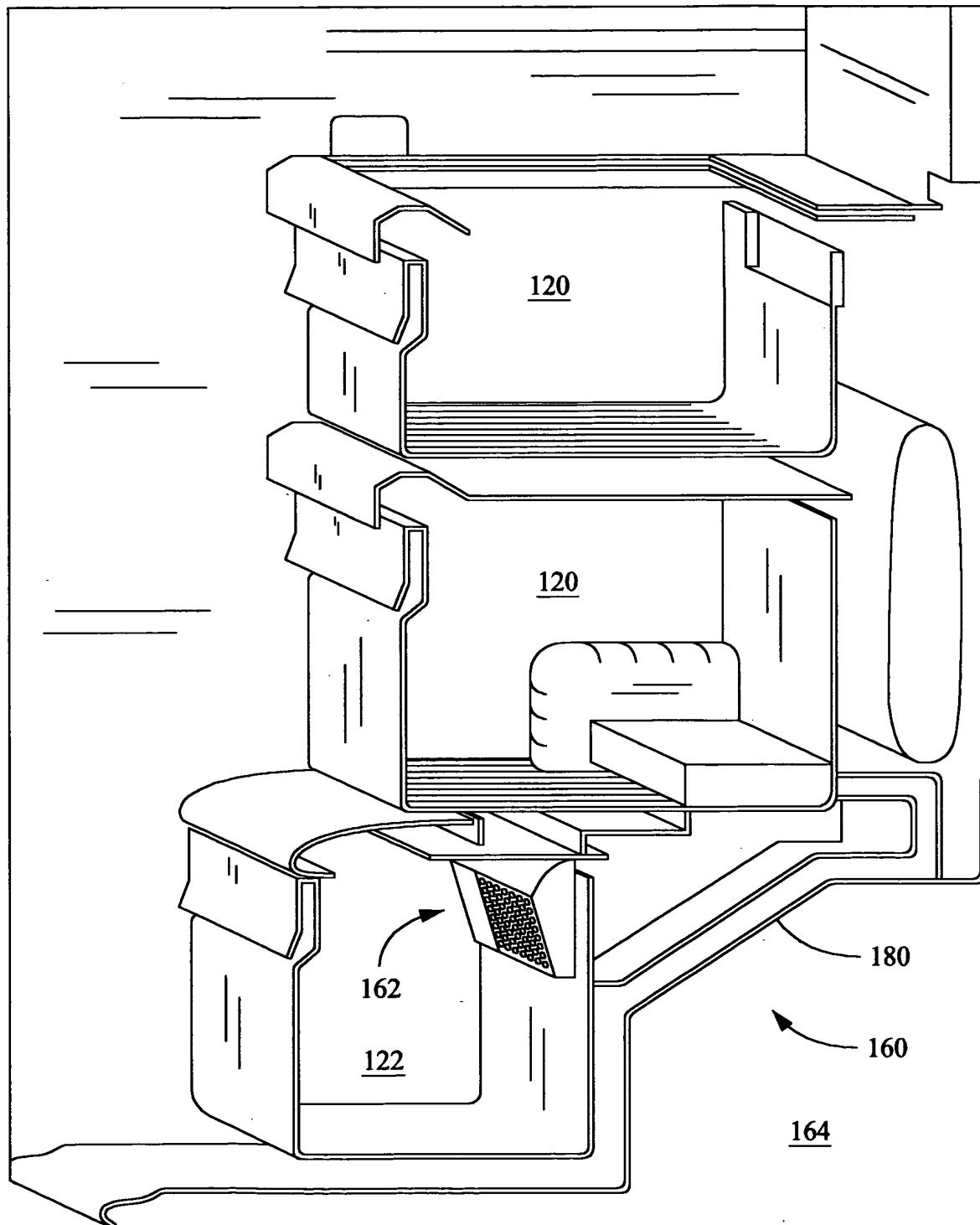


FIG. 2

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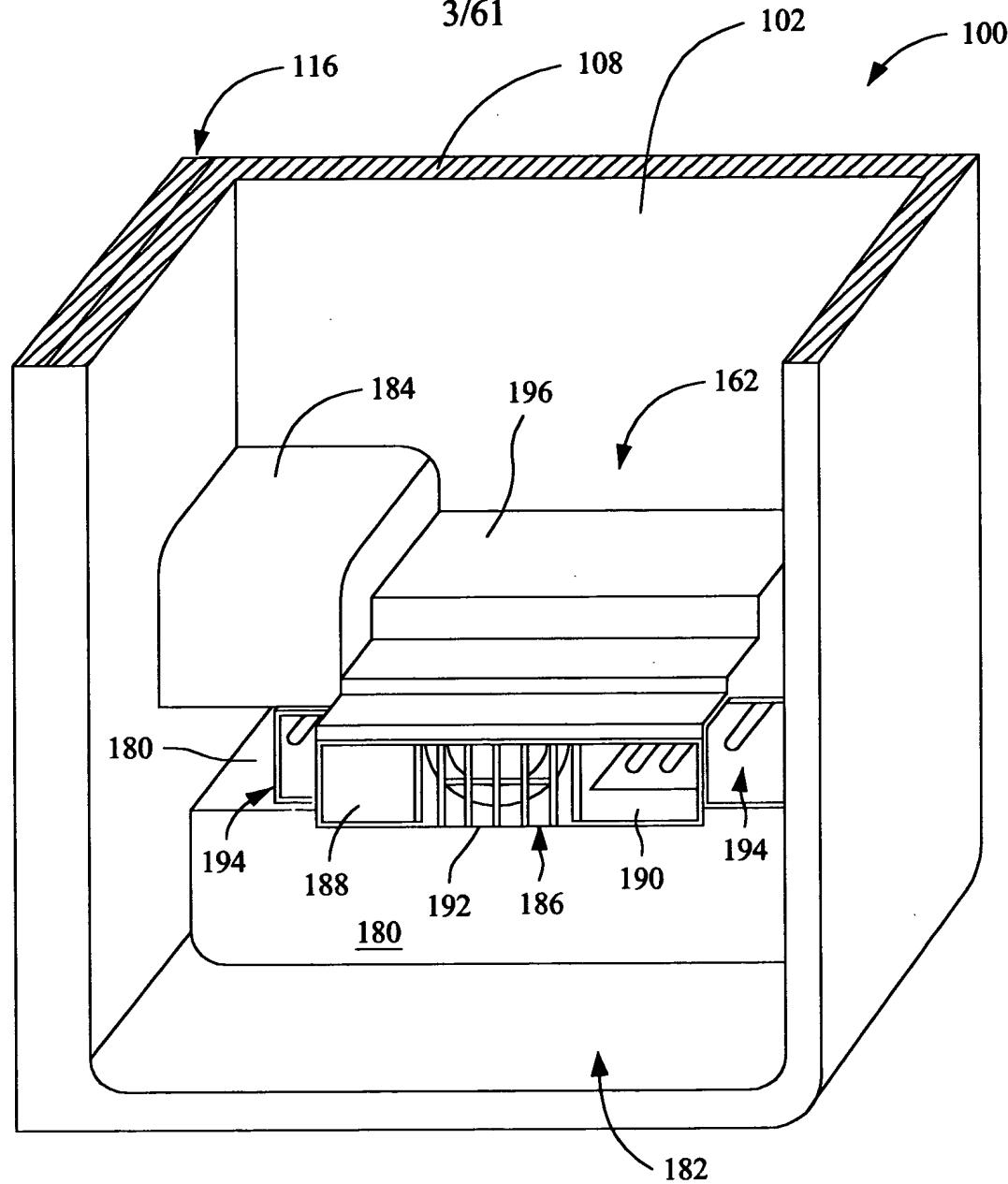


FIG. 3

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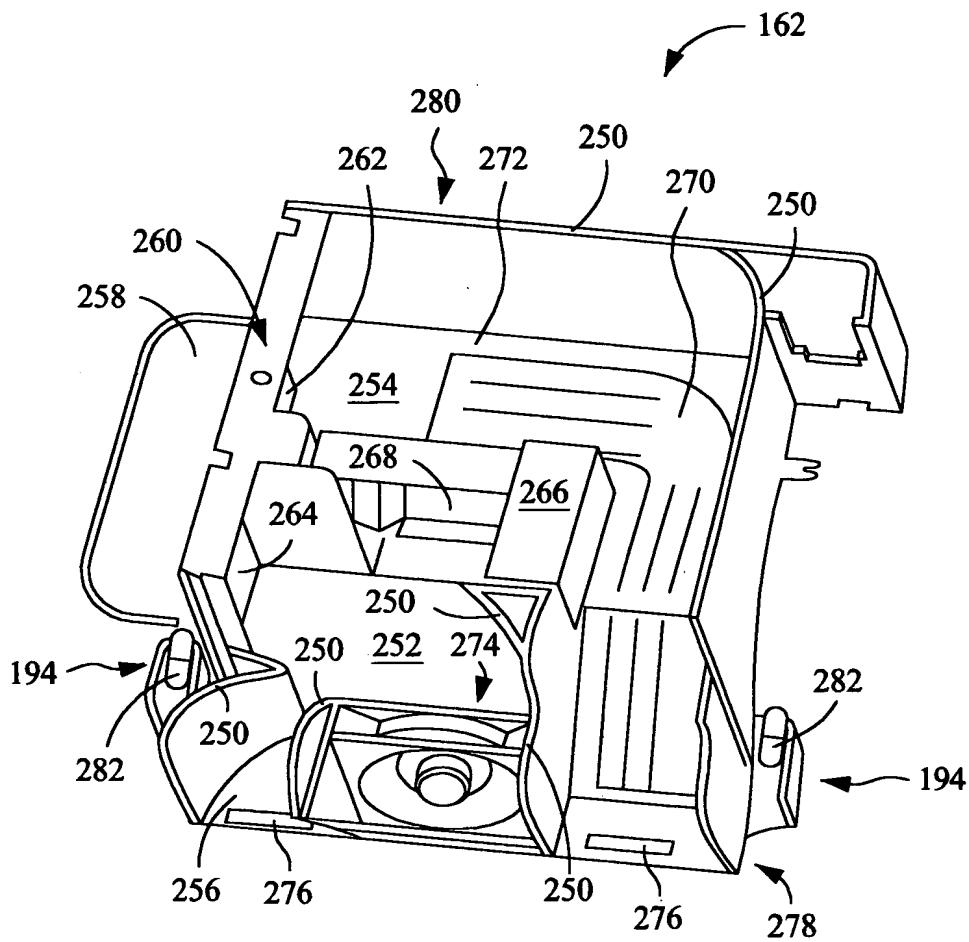


FIG. 4

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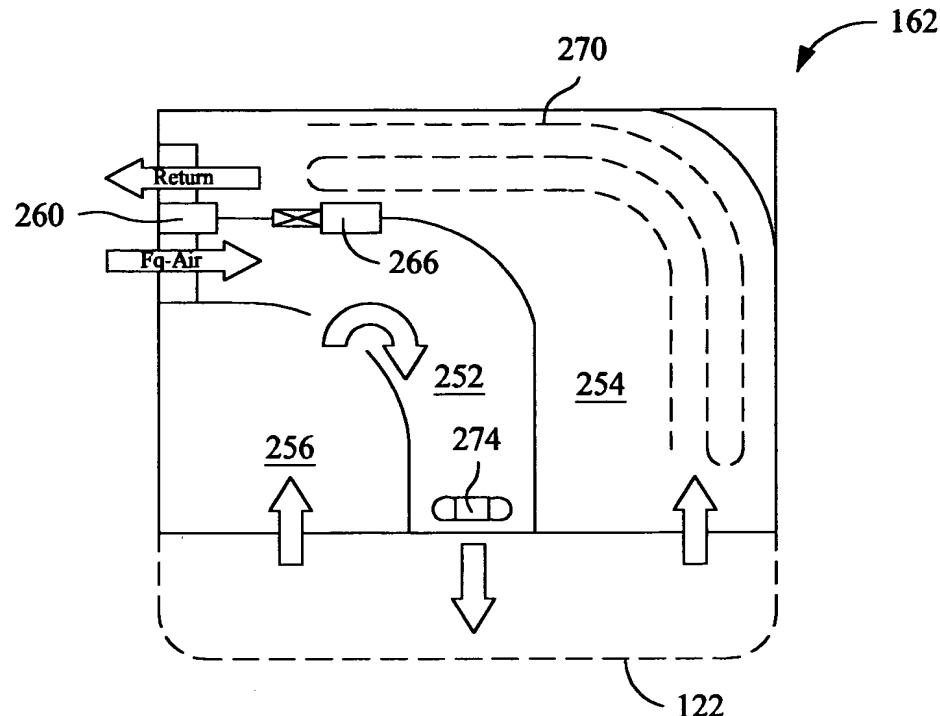


FIG. 5

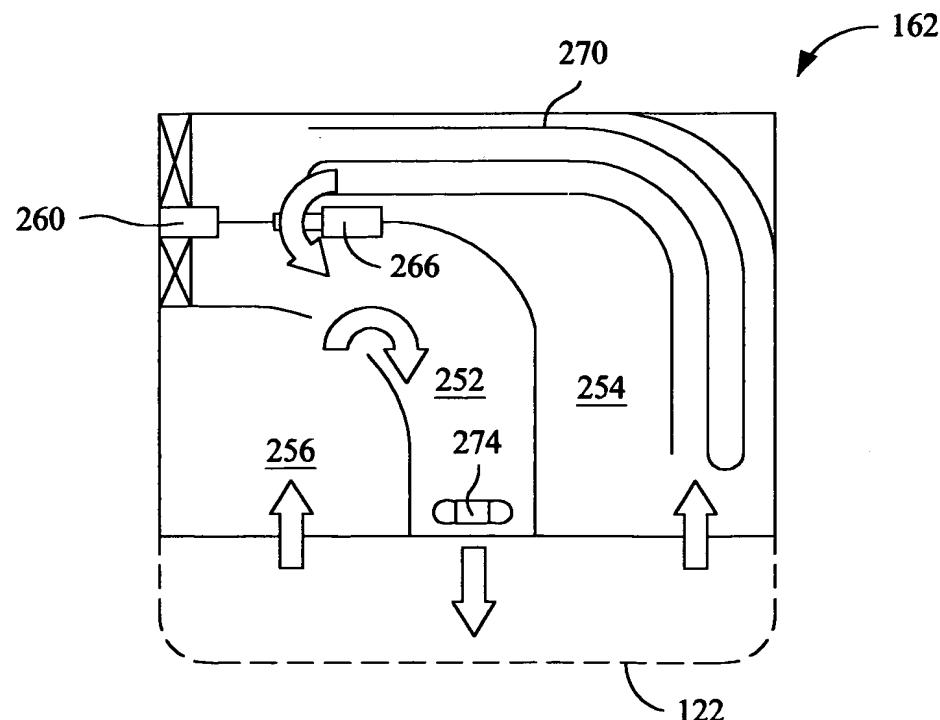


FIG. 6

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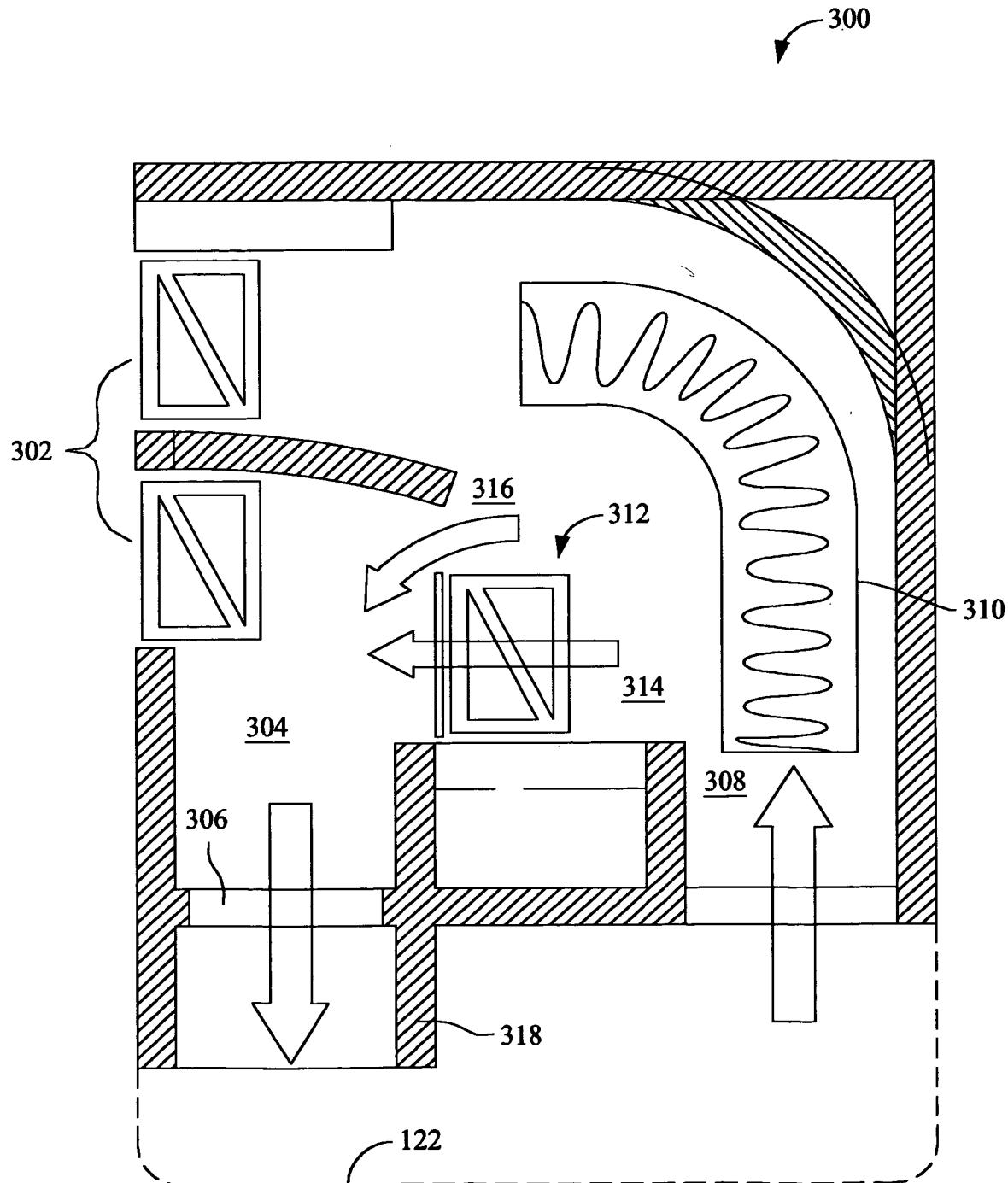


FIG. 7

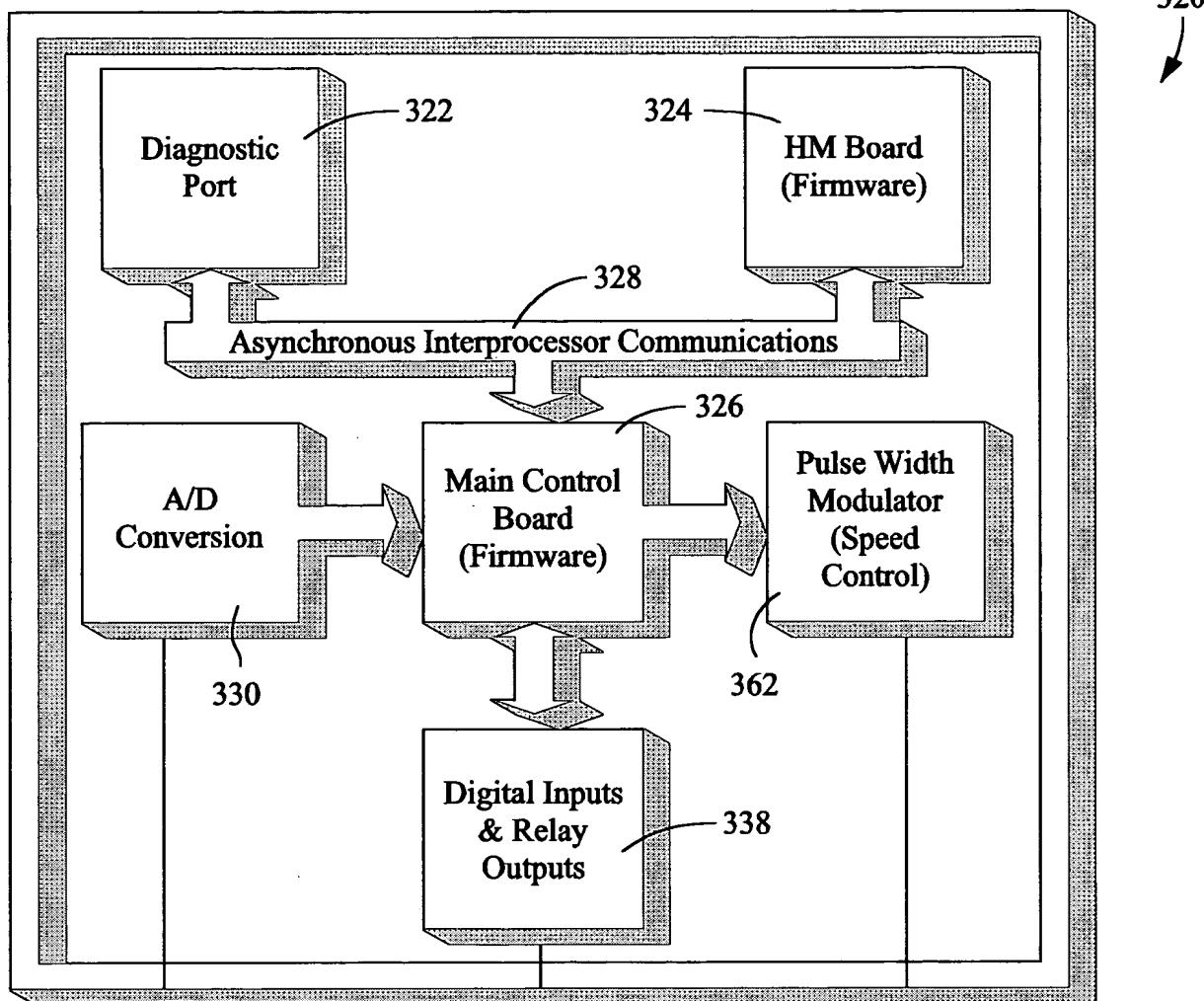
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FF Temp 2—332	Cond. Fan Tach.—340	Condensor Fan—364
FF Temp—332	Evap. Fan Tach.—342	FF Fan—366
Feature Pan Temp—276	Crusher Solenoid—344	Evaporator Fan—368
FZ Temp—334	Auger Motor—346	Feature Pan Fan—274
Evap. Temp—336	Personality Inputs (Site Specific)—348	
	Water Dispensor Valve—350	
	Encoders for Set Points—352	
	Compressor Cntl—354	
	Defrost Heater—356	
	Door Detector—358	
	Mullion Damper 360	
	Feature Pan Damper 1—260	
	Feature Pan Damper 2—266	
	Feature Pan Heater—270	

FIG. 8

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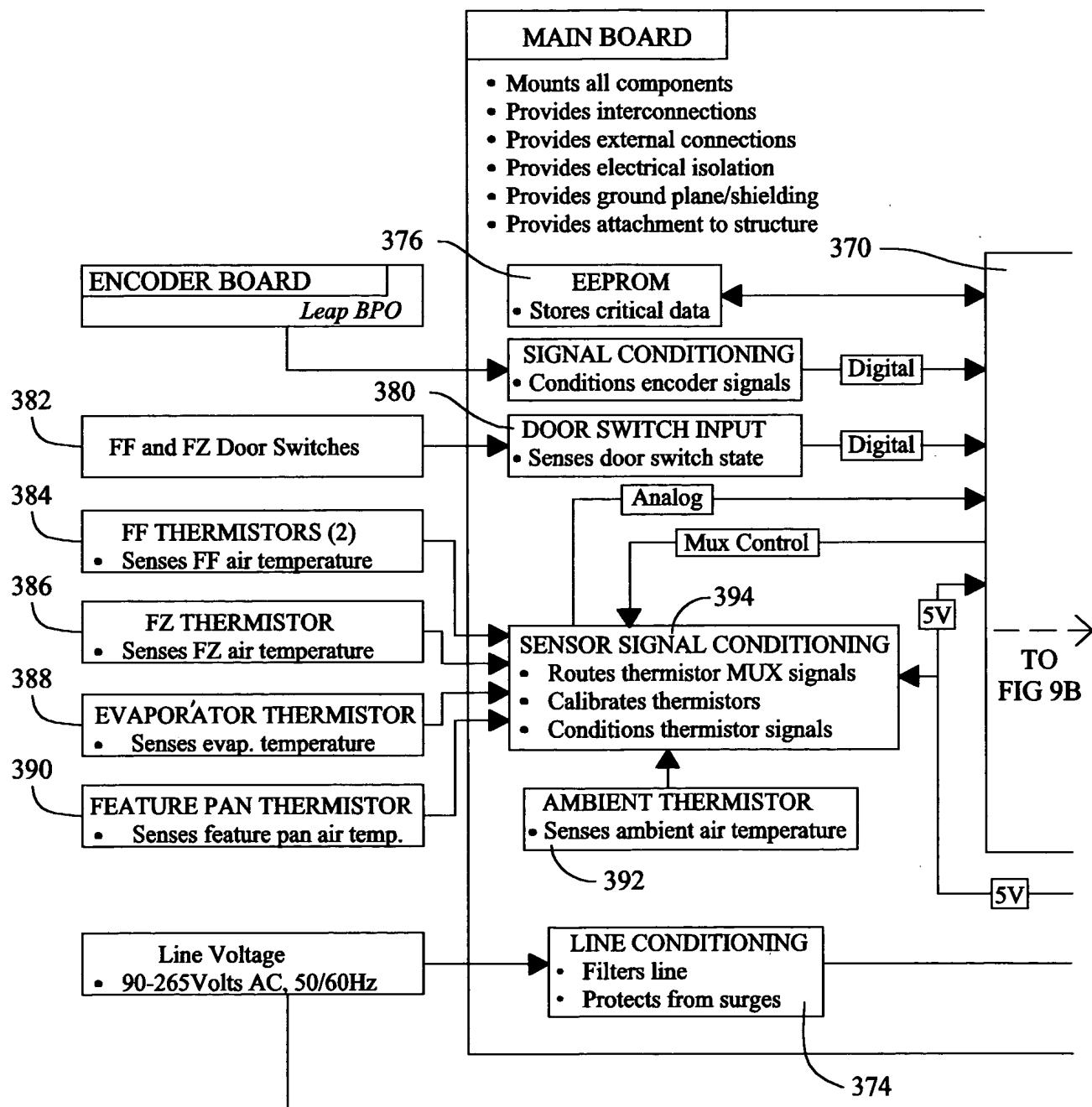
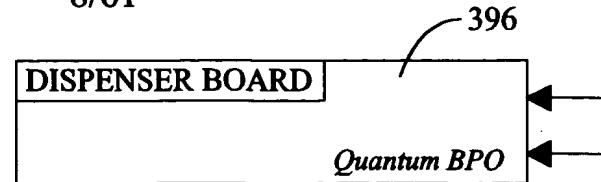


FIG. 9A

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← TO —
FIG 9A

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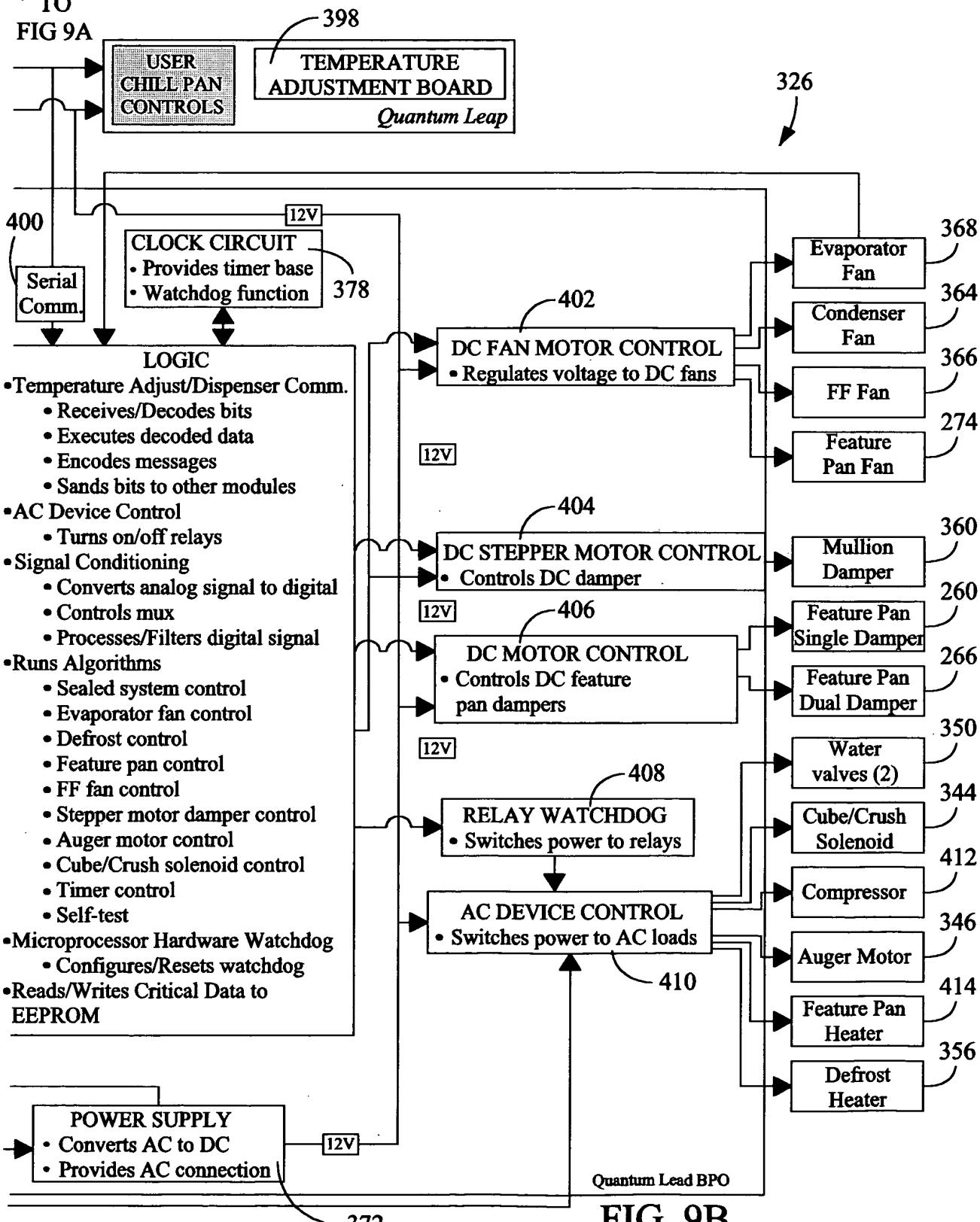


FIG. 9B

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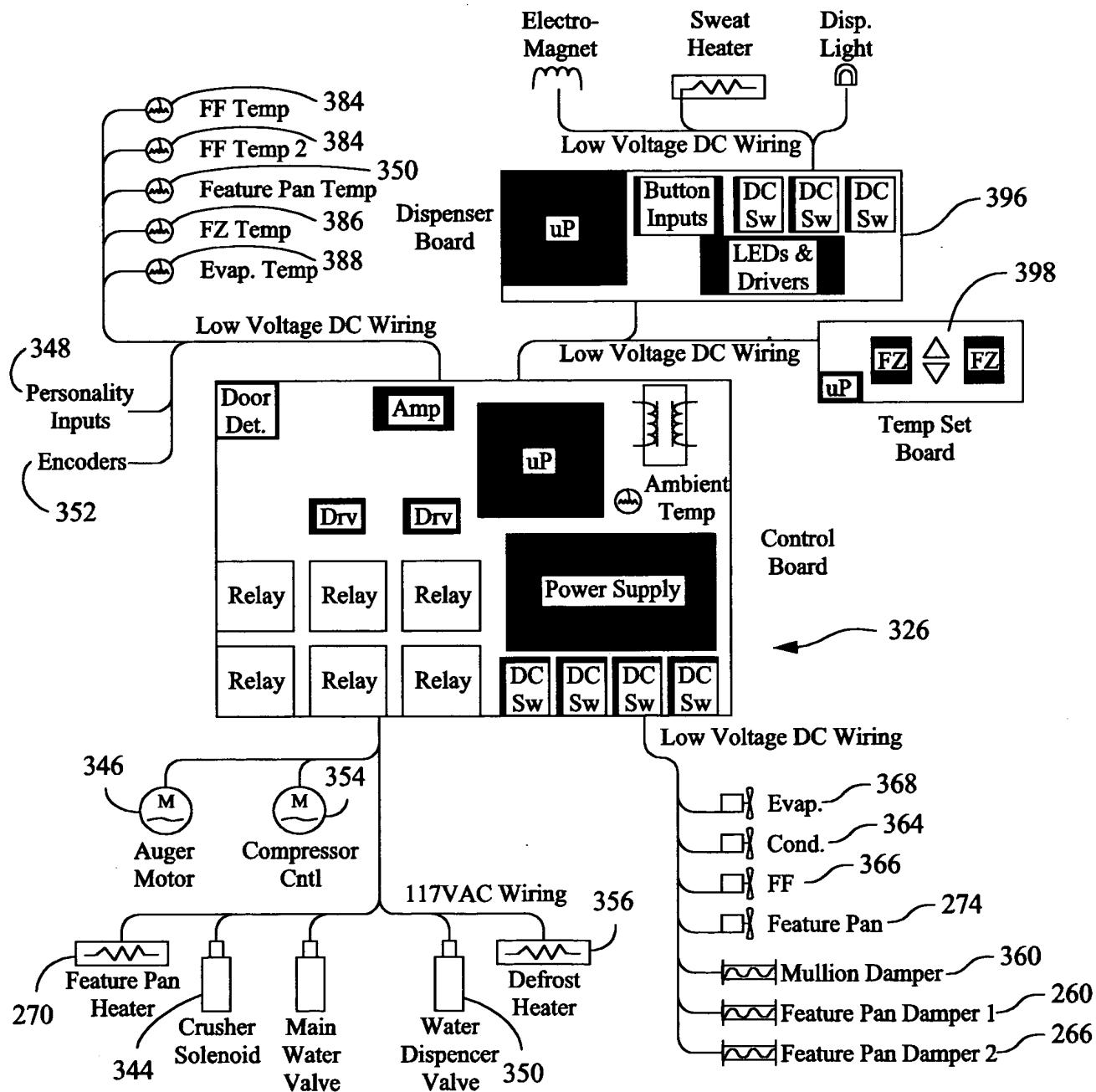


FIG. 10

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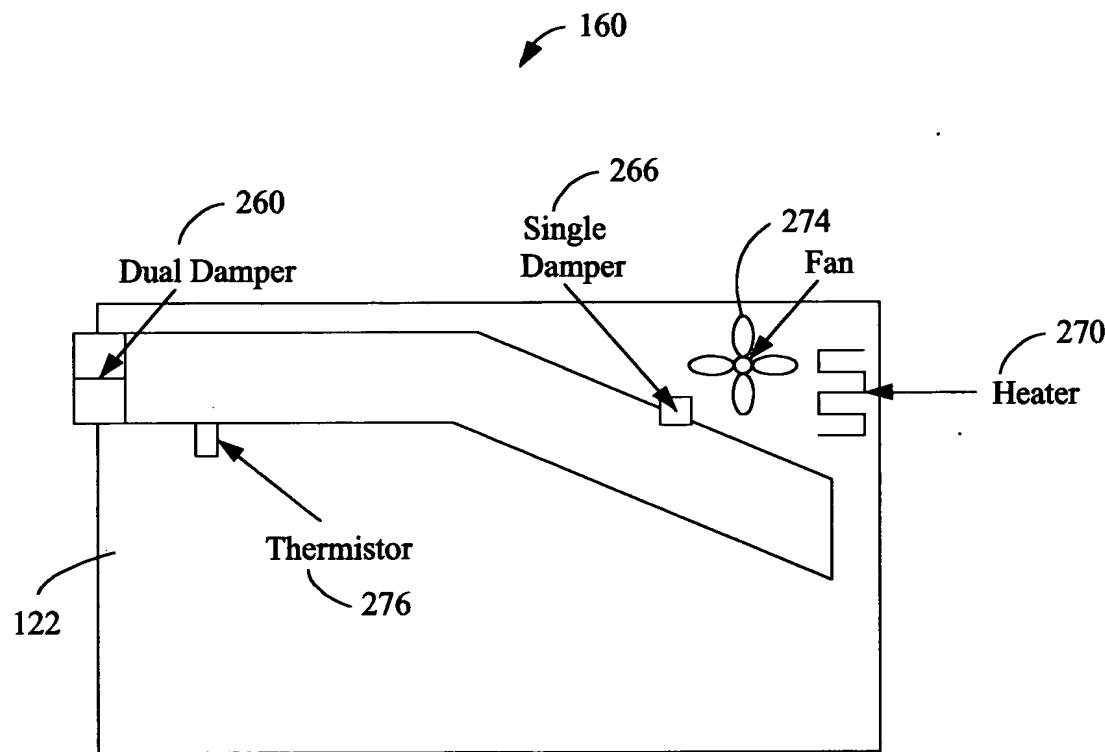


FIG. 11

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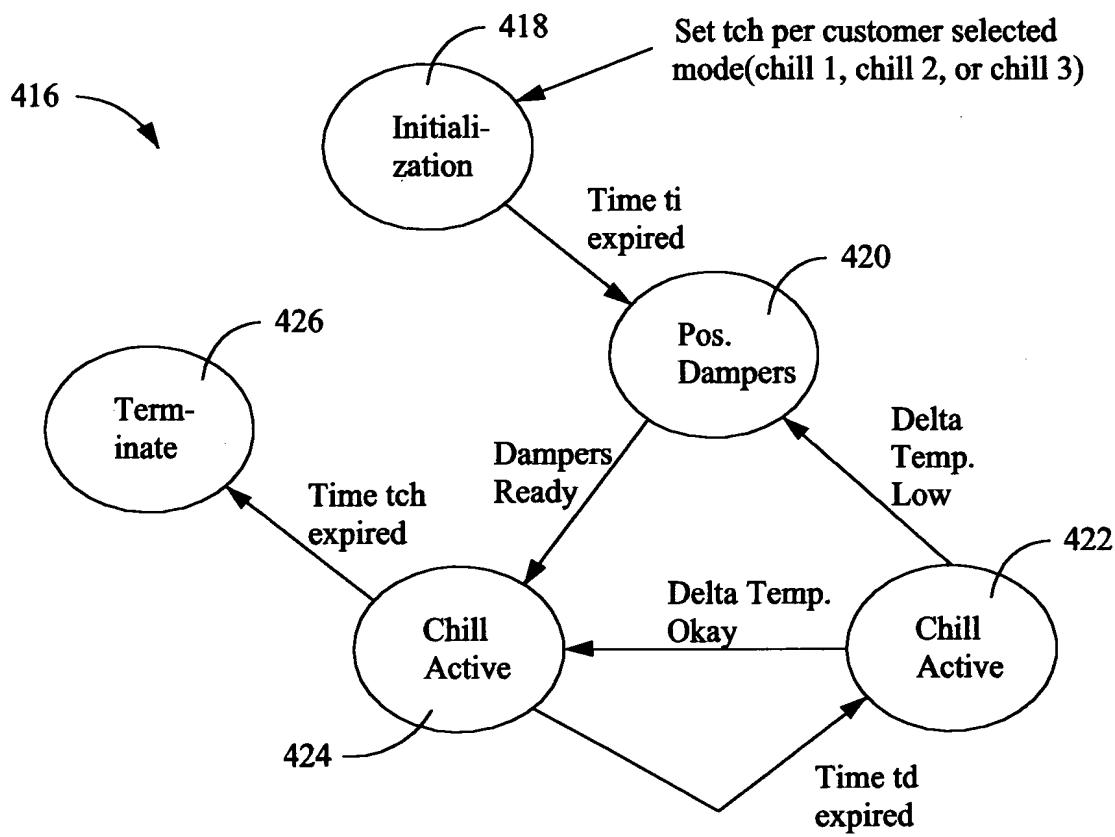
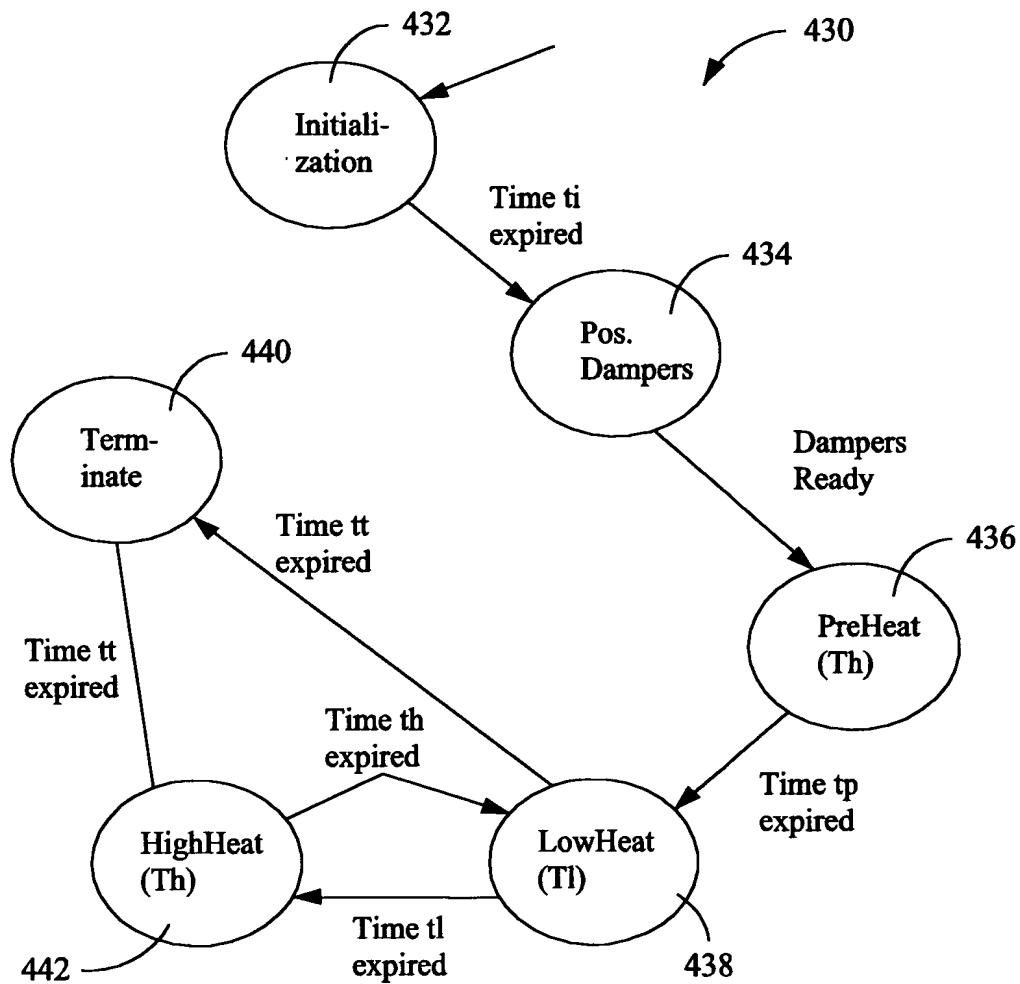


FIG. 12

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Initialization: Shuts off heater and turns on fan. This mode is implemented so that the customer interface LED that is wired in parallel with the fan will turn on as soon as the button is hit. Time ti is the initialization time and will typically be approximately one minute.

Pos. Dampers: This state shuts off the fan, sets the single damper open then closes the dual damper. It then turns the fan back on. This is done for power management

PreHeat: This state regulates the pan temperature

LowHeat

HighHeat:

Terminate: This mode closes both dampers and shuts off the fan then returns to idle.

FIG. 13

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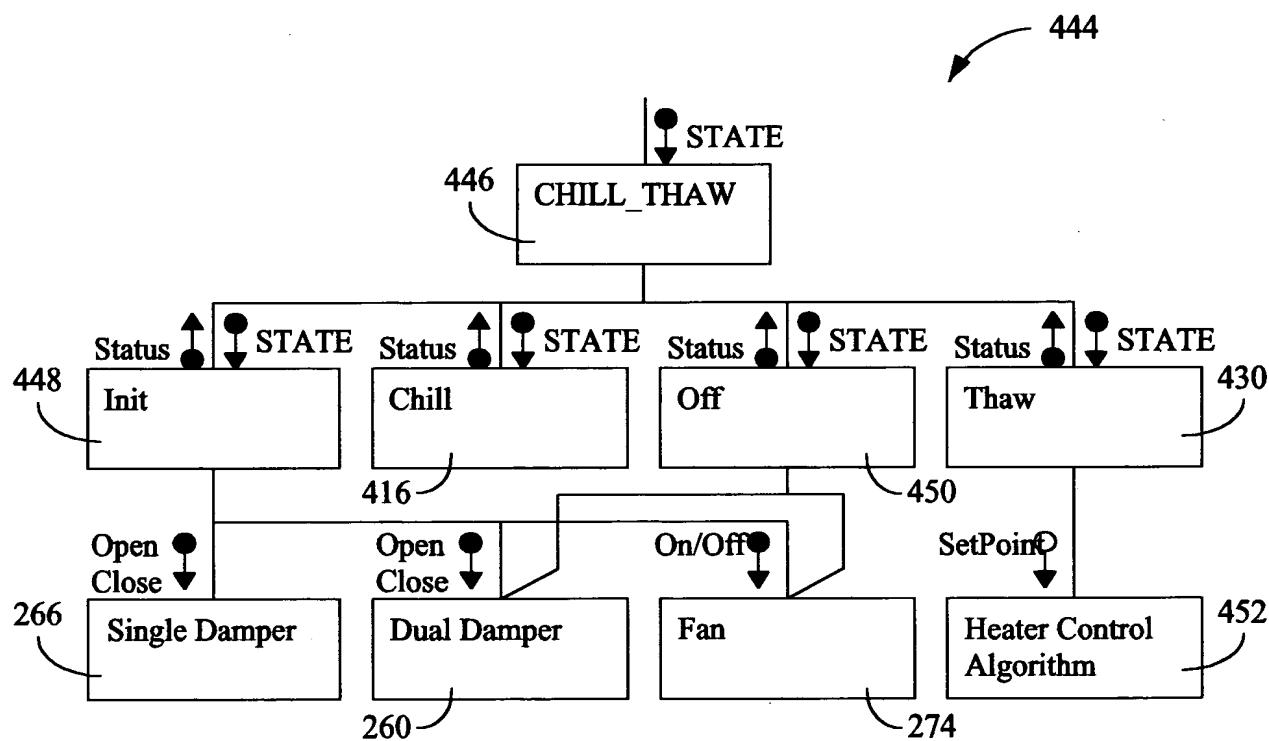
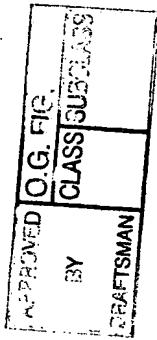


FIG. 14



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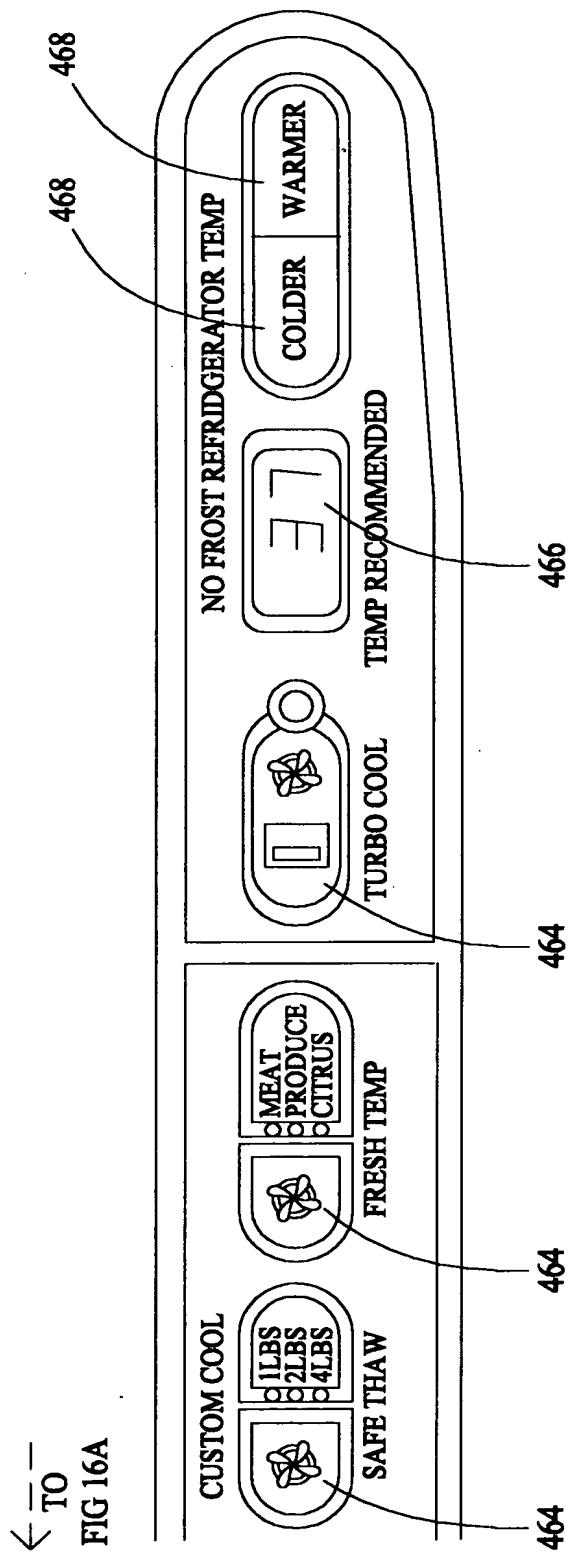


FIG. 16B



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REDACTOR ELECTRONICS INC.
k; Armstrong Teasdale LLP, One Metre

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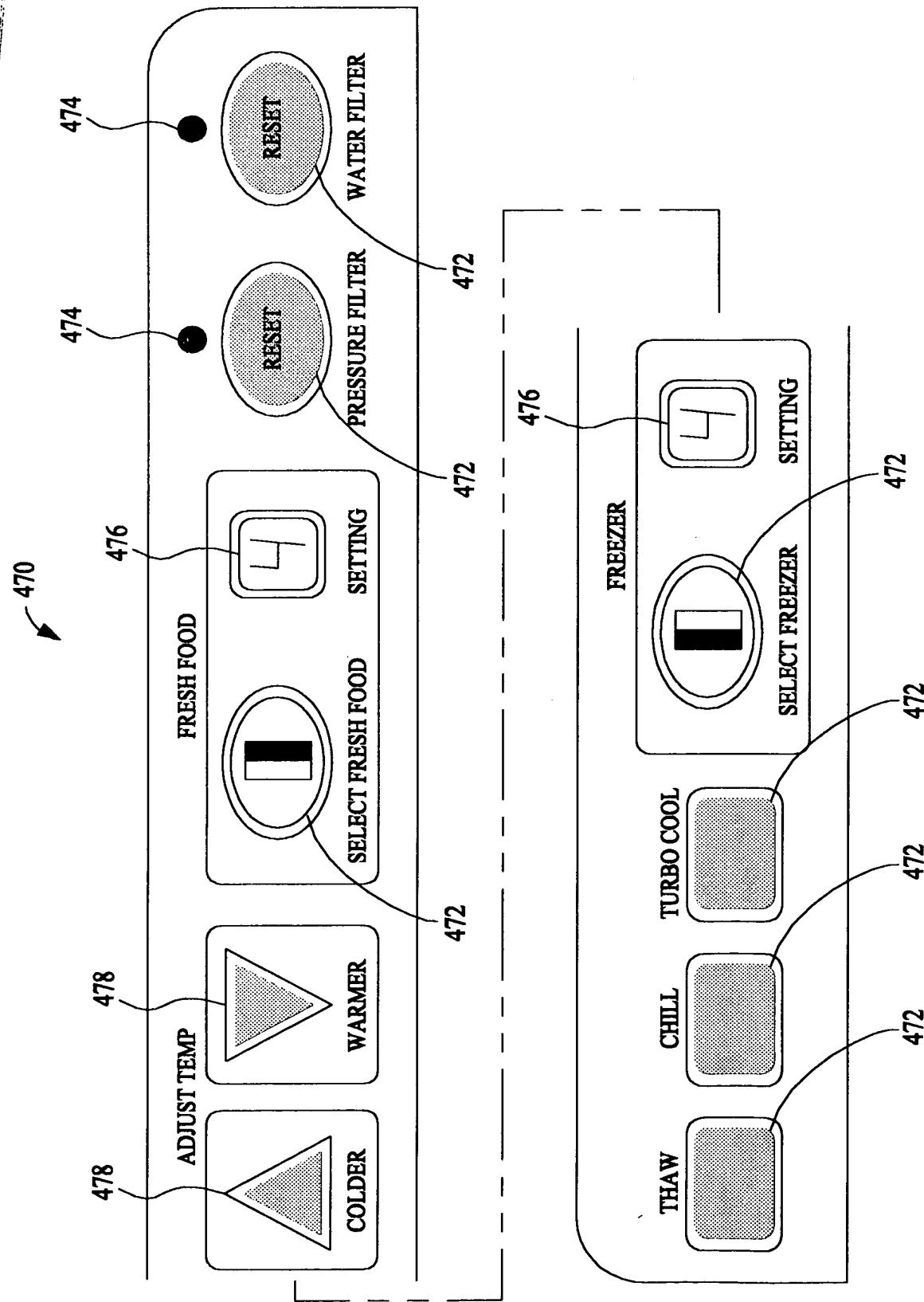


FIG. 17



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Sealed System Assumptions:

- No SS Failures
- No Sensor Failures

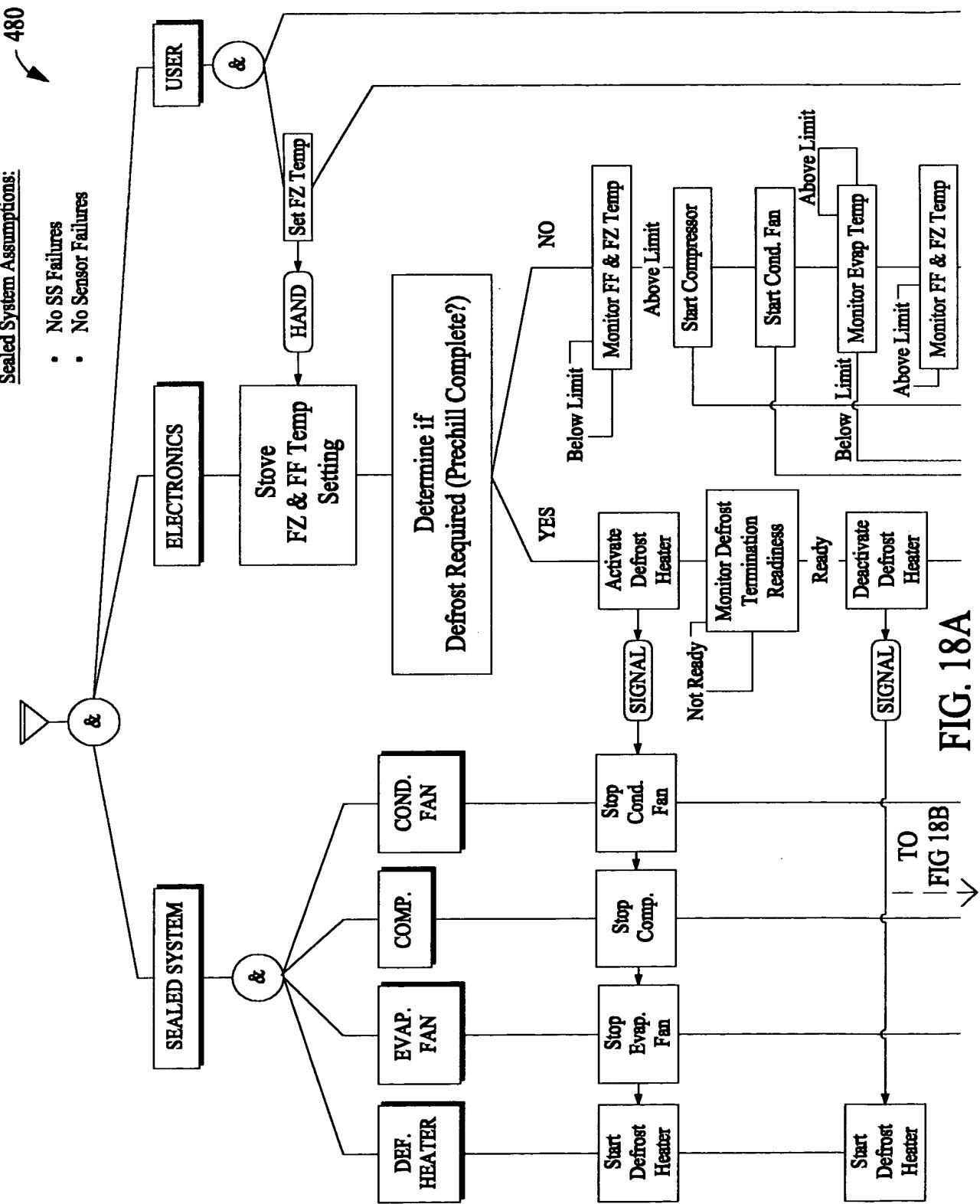
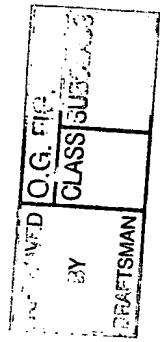
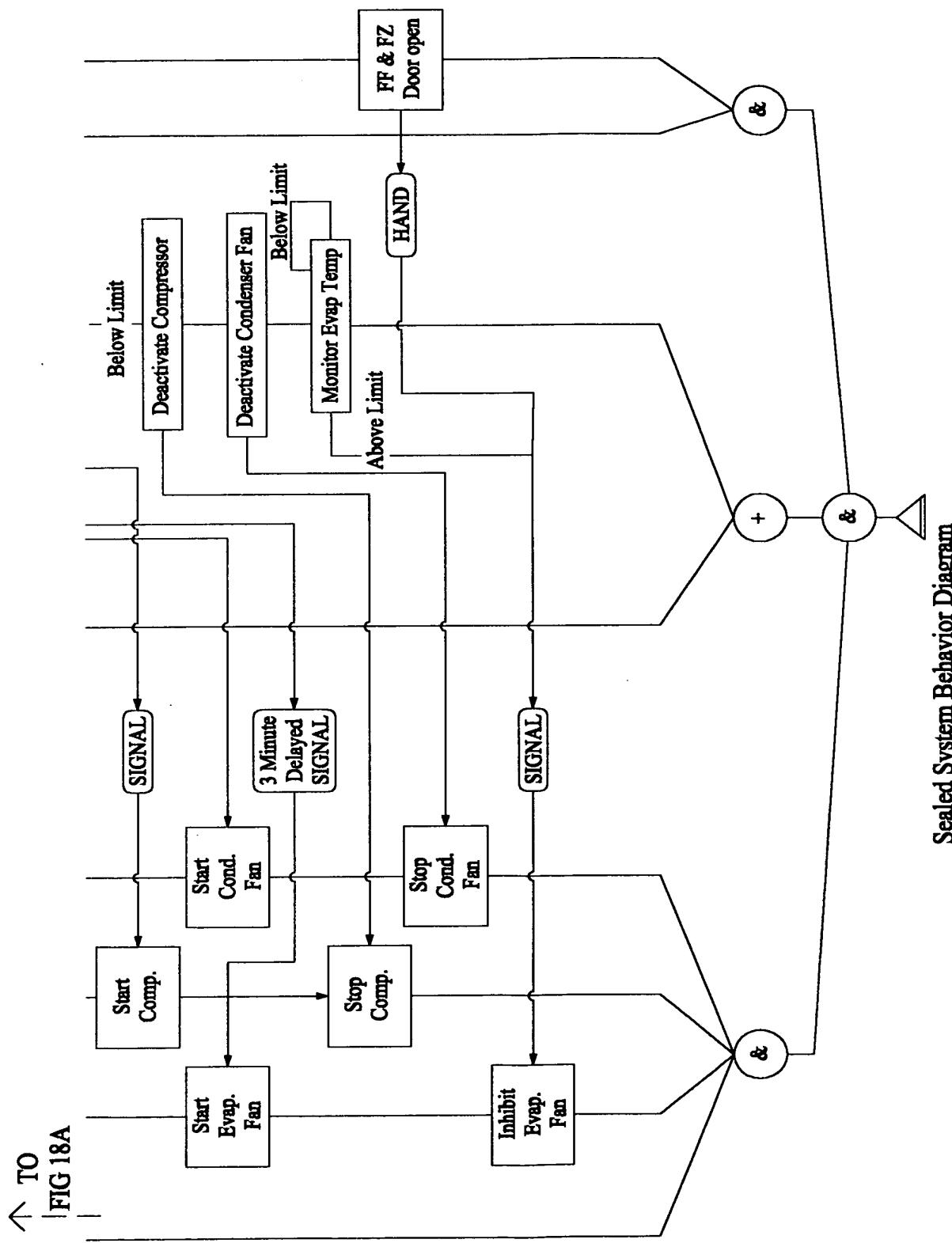


FIG. 18A

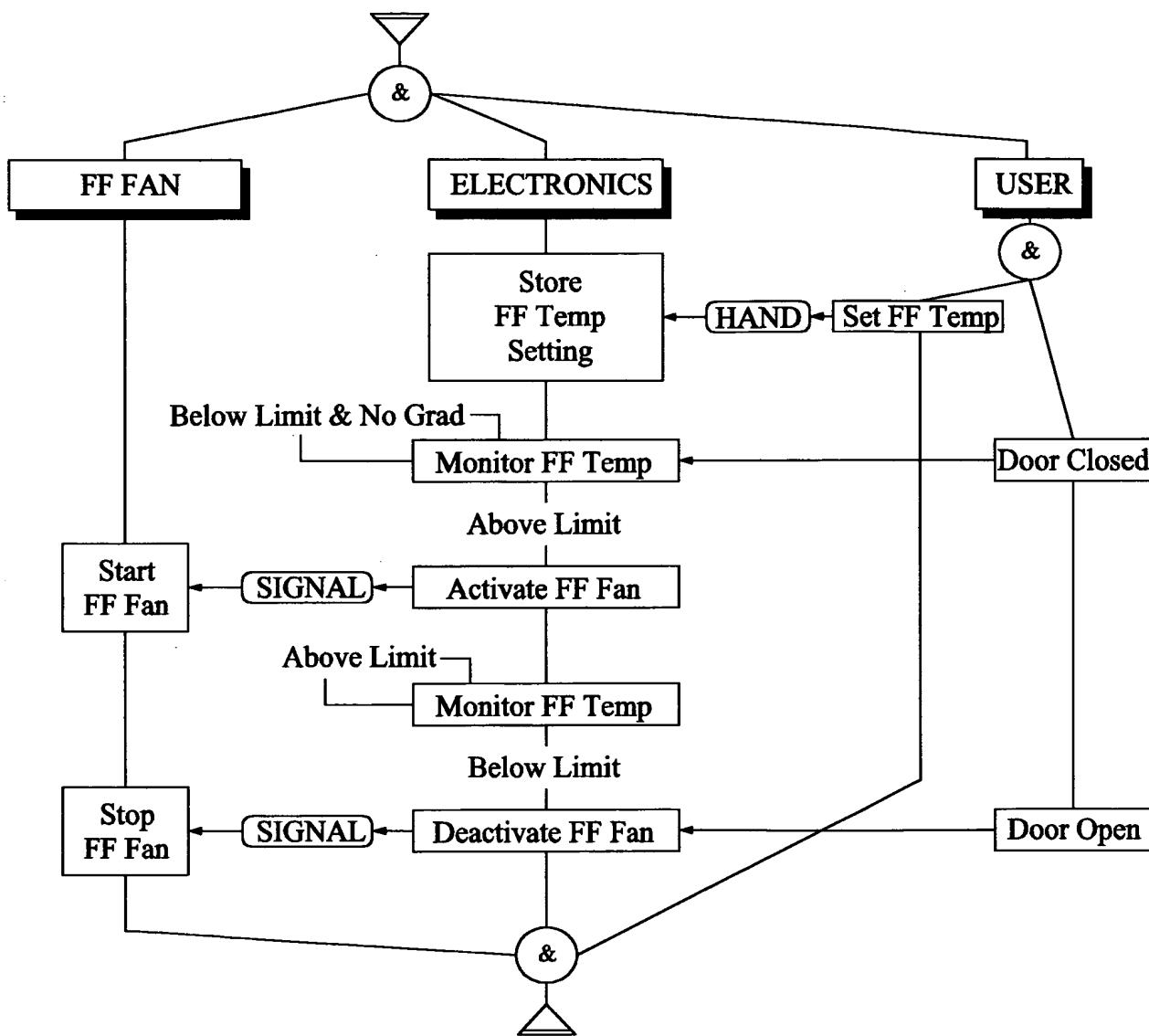


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Fresh Food Fan Behavior Diagram

FIG. 19

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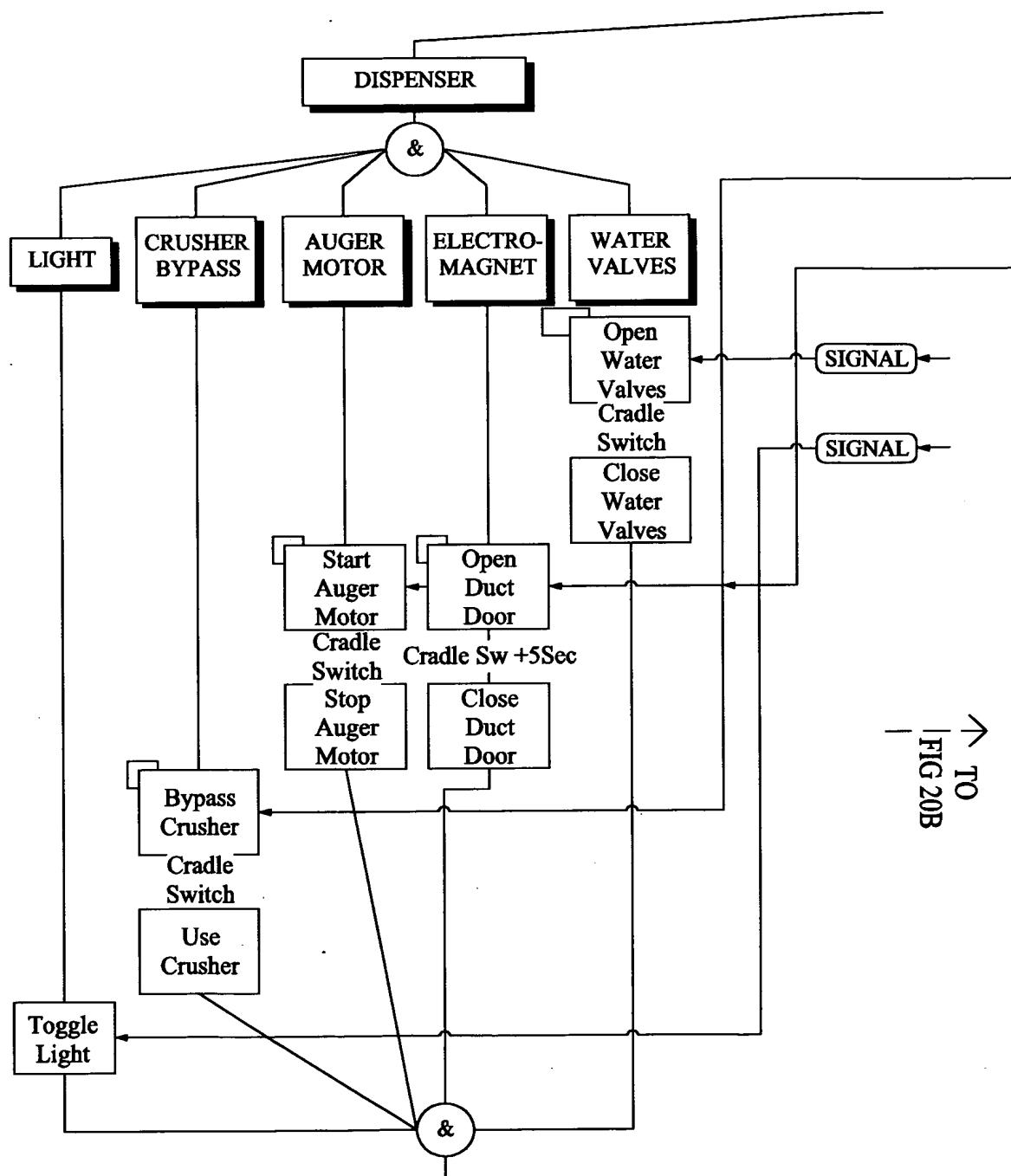
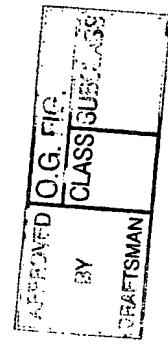


FIG. 20A

Dispenser Behavior



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Dispenser Assumptions:

- No Sensor Failures

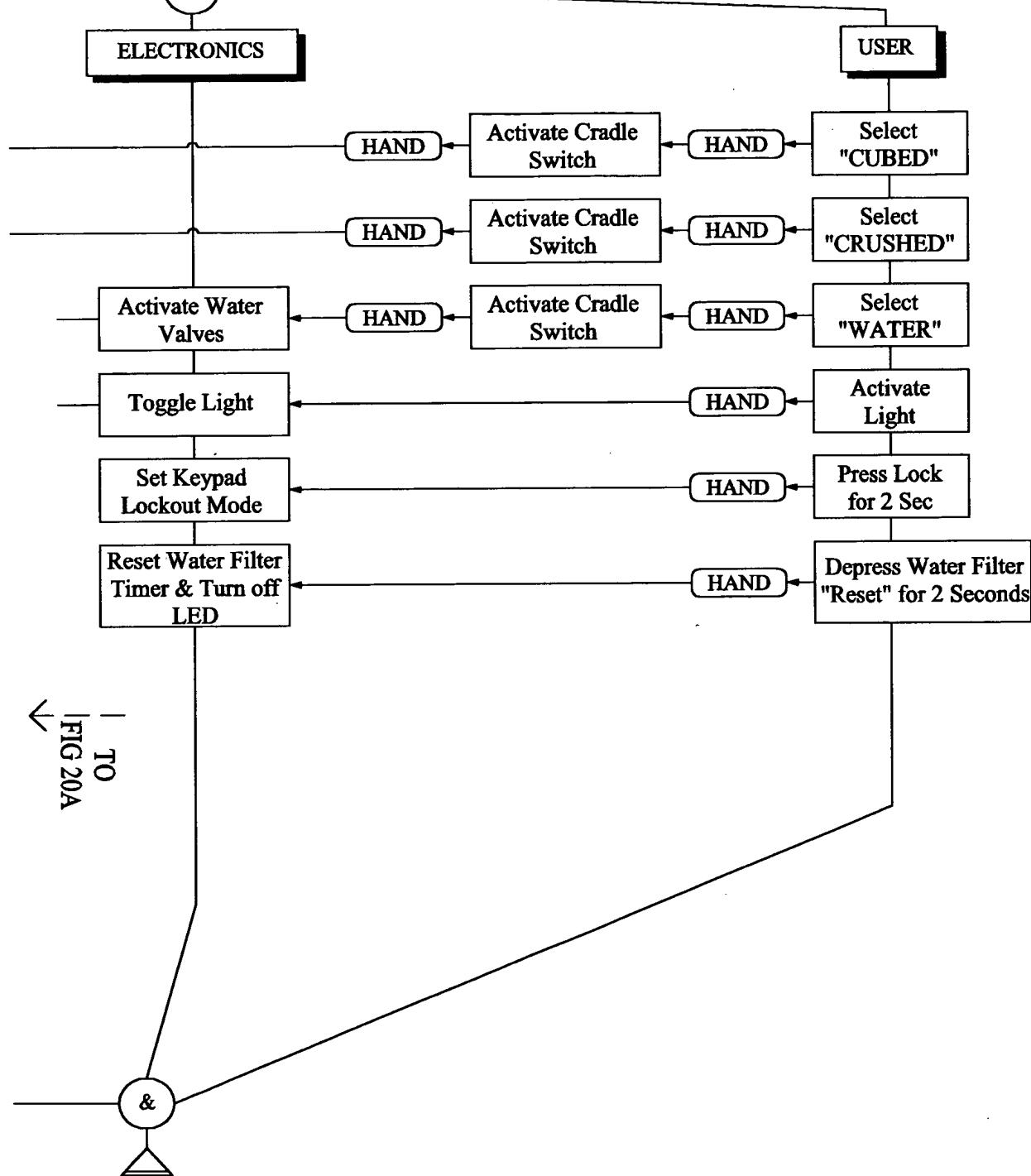


FIG. 20B



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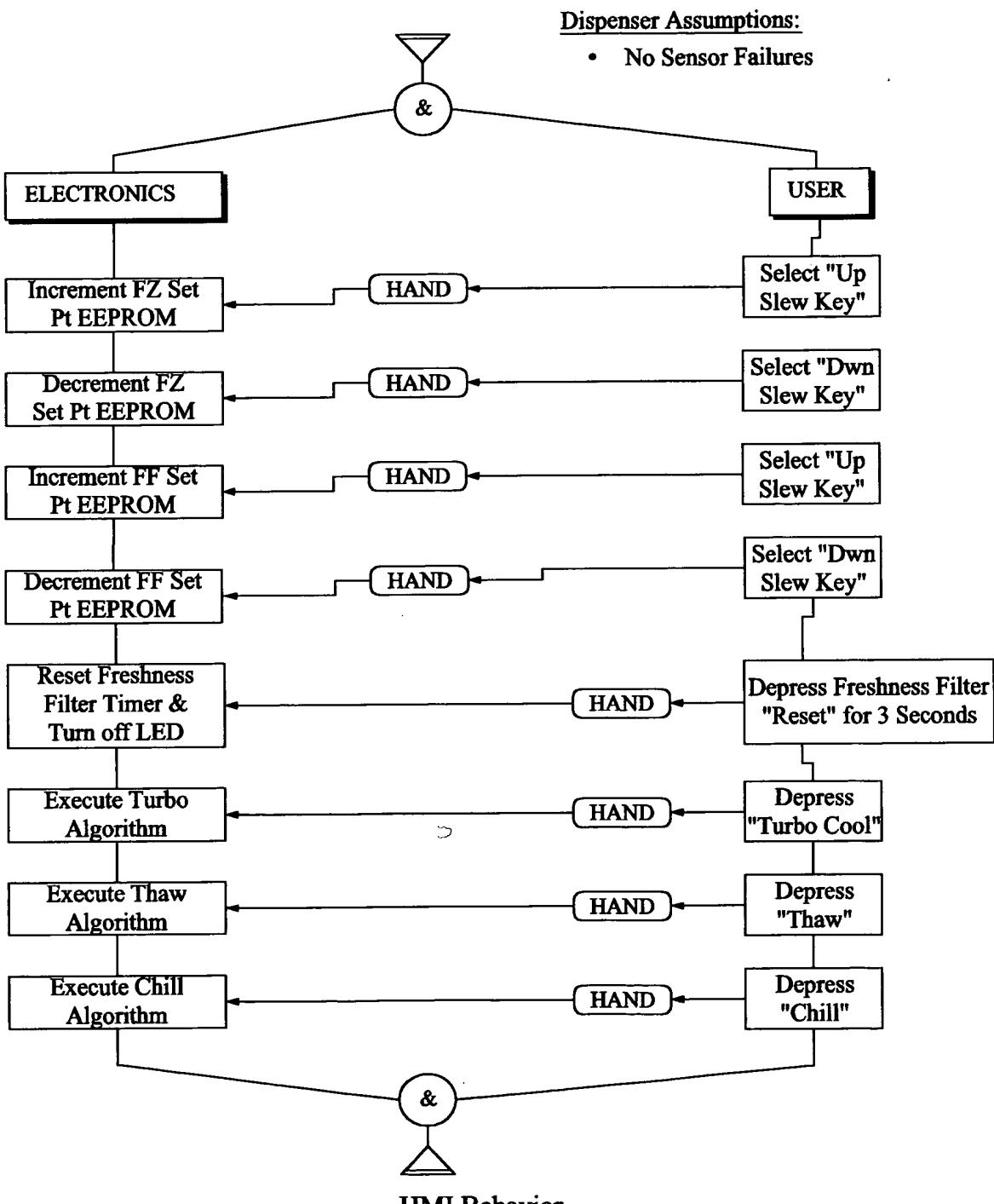


FIG. 21